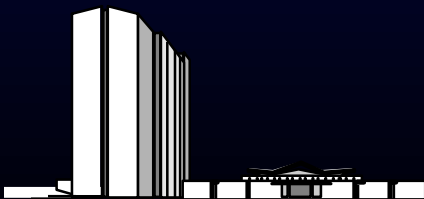


Automating document delivery: A case study

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Document Delivery

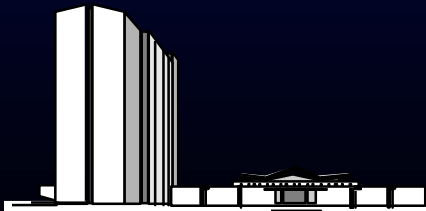
Why automate?

Document Delivery: an artifact of the paper-based world

Paper will remain: legacy collections

Problem: Heavily manual; therefore expensive

Solution: Design system that minimizes operator tasks



Typical document delivery operations

Library receives request: by mail, fax, email,
request routing system (e.g., DOCLINE)

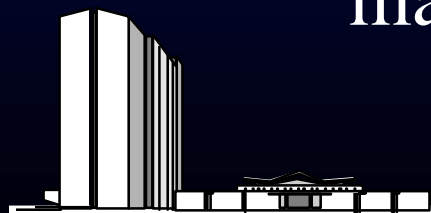
Requests are sorted

Staff take requests to stacks, pull paper documents

Staff: photocopy, staple, QC, put in envelope, mail
fax

Ariel

Staff then update request routing system,
maintain records



Document Delivery

Guiding philosophy for WILL

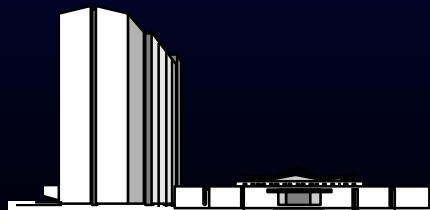
(Workstation for InterLibrary Loan)

Separate document delivery functions into those that can be automated and those that cannot

Only manual functions should be retrieving documents and scanning

All other functions should be automated

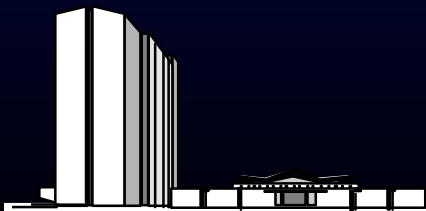
Special administrative arrangements for different delivery modes should be eliminated



Document Delivery

WILL: What is it?

A self-contained integrated machine that eliminates
all manual document delivery activities ---
EXCEPT for document scanning



Document Delivery

What WILL does: It

Calls up DOCLINE and retrieves ILL and Loansome Doc requests

Prints request and a barcode

Informs the operator of which documents to go get from the shelves

Correlates request with document (through barcode)

Processes the request to determine the required delivery mode and destination information



Document Delivery

(Continued)

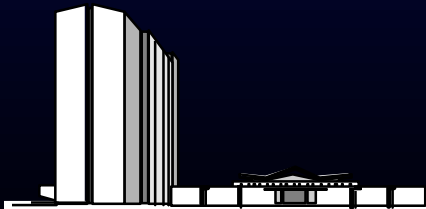
Lets the operator scan

Converts the image files to formats required for fax,
print, Internet

Channels the images appropriately to sending modules

Sends images to Ariel, DocView, fax machine or
local printer

Updates DOCLINE status



Document Delivery

WILL hardware consists of

Pentium PC :

12 MB RAM, 1.2 GB hard disk, keyboard, mouse

High resolution Cornerstone monitor

Fujitsu 3096E+ scanner

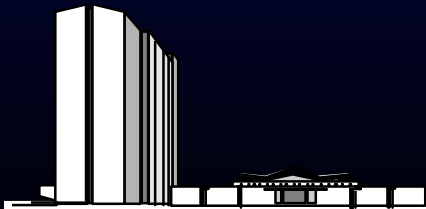
Kofax image processing boards (2) *[printer, scanner]*

Intel SatisFAXtion board *[fax]*

Ethernet board *[Internet]*

Laser printer

Barcode scanner



Document Delivery

WILL software consists of

Microsoft Windows

Kofax Image Processing Platform (KIPP)

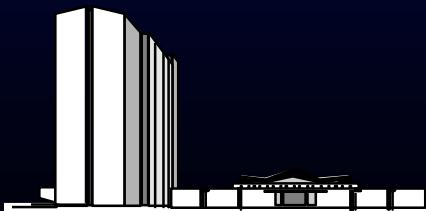
Developer's Toolkit

Intel CASMGR faxing software

Frontier Technologies communications software

Strandware Print Barcode Library

Inhouse modules developed in C language



Document Delivery

Role of the Front End Processor

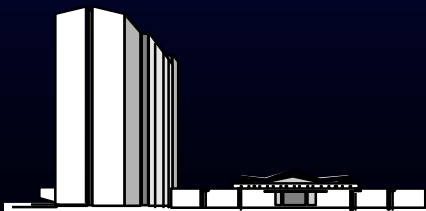
FEP acts as a request server, querying DOCLINE for ILL and Loansome Doc requests

FEP stores each request in system

Printer prints request and a unique barcode

FEP also places all document and requester data from the request in a database

After operation is done, FEP updates DOCLINE



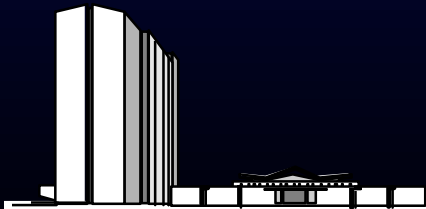
Document Delivery

What does the operator do?

The operator:

Gets the documents from the shelves

Scans the barcode on the printed request (that accompanies the document from the shelves);
WILL “knows” that the request corresponds to a particular document



Document Delivery

What is to be evaluated?

Performance

How fast is each delivery mode?

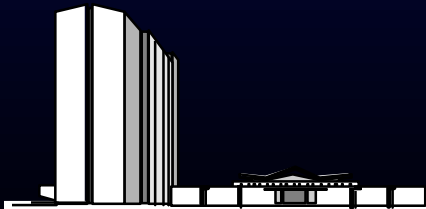
How good is the image quality?

What combination of delivery modes is optimal?

How legible and usable is the user interface?

Cost

Compare against current operation

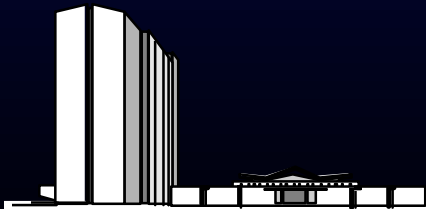


Custom features for the NIH Library

Batch print : sort requests by floor,
delivery type, journal title

Independent DOCLINE update : set status
as “filled” for DOCLINE update of requests
not delivered by WILL

WILL Administrator : display status of all
requests



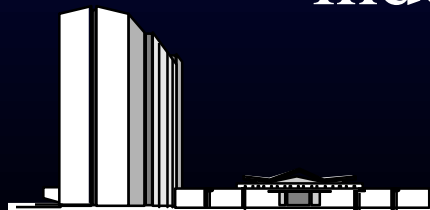
Document Delivery

Modifications to WILL during beta test

FEP : to be compatible with DOCLINE
enhancements

Batch print : to be compatible with changes
in journal location

Divide FEP into DOCLINE download and
DOCLINE upload : run each function
independently



Future issues

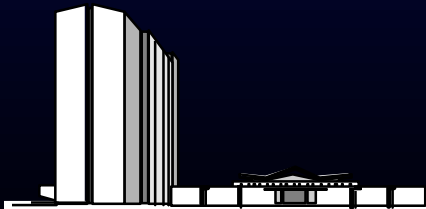
Input devices that improve performance

Faster scanners

OCR

Handheld PDA

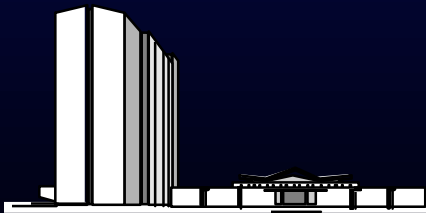
Workflow for multiple WILLS



Document Delivery

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Document Delivery